

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-10. (Cancelled)

11. (Withdrawn) A denitration method which comprises bringing exhaust gas containing nitrogen oxides and not more than 80% of water as water vapor, and NH_3 gas having the same concentration as the nitrogen oxides into contact with a heat-treated active carbon, said heat-treated active carbon is prepared by heat-treating an active carbon at 600° to $1,200^\circ \text{C}$ in a non-oxidizing atmosphere so as to remove oxygen-containing functional groups present at the surfaces thereof and thereby reduce the atomic surface oxygen/surface carbon ratio to 0.05 or less, at a temperature ranging from ordinary temperature to 150°C , in order to reduce the nitrogen oxides selectively and thereby decompose them to nitrogen and water.

12. (Withdrawn) A denitration method as claimed in claim 11 wherein a higher degree of denitration of nitrogen oxides having a low temperature and a low concentration is performed at the outlet of an exhaust gas treating apparatus or the outlet of a boiler.

13. (Currently Amended) A denitration system using an active carbon fiber, said denitration system comprising a first packed reactor which is packed with a heat-treated carbon fiber produced by heat treating a raw active carbon fiber at a temperature in the range of 600 to $1,000^\circ \text{C}$ in a non oxidizing atmosphere, and a second packed reactor which is located downstream thereof and packed with said heat-treated active carbon fiber, whereby exhaust gas and ammonia (NH_3) are introduced into said first packed reactor so as to bring nitrogen oxides (NO_x) present in the exhaust gas into contact with the ammonia and remove the nitrogen oxides by the continuous selective reduction of them to nitrogen (N_2), and any excess ammonia is recovered by adsorption in said second packed reactor.

14. (Currently Amended) A denitration system using an active carbon fiber ~~as claimed in claim 13~~ said denitration system comprising a first packed reactor which is packed with a heat-treated carbon fiber produced by heat treating a raw active carbon fiber at a temperature in the range of 600 to $1,000^\circ \text{C}$ in a non oxidizing atmosphere, and a second packed reactor

which is located downstream thereof and packed with said heat-treated active carbon fiber, wherein exhaust gas is alternately introduced into said first packed reactor and said second packed reactor so as to perform denitration and ammonia adsorption repeatedly.

15. (Currently Amended) A denitration system using active carbon, said denitration system comprising a denitrator packed with a heat-treated active carbon fiber which is produced by heat-treating a raw active carbon fiber at a temperature in the range of 600 to 1,000°C in a non oxidizing atmosphere, and first and second ammonia adsorbers located before and behind said denitrator, respectively, whereby exhaust gas containing nitrogen oxides is alternatively introduced through any one of said first and second ammonia adsorbers, ammonia (NH₃) is introduced at a position between said first or second ammonia adsorber and said denitrator, nitrogen oxides (NO_x) present in the exhaust gas are brought into contact with said heat-treated active carbon placed in said denitrator and removed by the continuous selective reduction of them to nitrogen (N₂), and any excess ammonia is recovered by adsorption in the adsorber located downstream of said denitrator.

16. (Currently Amended) A denitration system using active carbon as claimed in claim 13 wherein said raw active carbon fiber comprises carbon fiber derived from polyacrylonitrile or pitch.

17. (Currently Amended) A denitration system using a heat-treated active carbon fiber for use in denitration, said denitration system comprising a first packed reactor which is packed with said a heat-treated active carbon fiber for use in denitration that is produced by heat-treating a raw active carbon fiber at a temperature of 600 to 1,200°C in a non-oxidizing atmosphere so as to remove oxygen-containing functional groups present at the surfaces thereof and thereby reduce the atomic surface oxygen/surface carbon ration to 0.05 or less, and a second packed reactor which is located downstream thereof and packed with said heat-treated active carbon fiber for use in denitration, whereby exhaust gas and ammonia are introduced into said first packed reactor so as to bring nitrogen oxides (NO_x) present in the exhaust gas into contact with the ammonia and remove the nitrogen oxides by the continuous selective reduction of them to nitrogen (N₂), and any excess ammonia is recovered by adsorption in said second packed reactor.

18. (Currently Amended) A denitration system as claimed in claim 17 wherein said raw active carbon fiber comprises active carbon fibers derived from polyacrylonitrile or pitch.

19. (Currently Amended) A denitration system using a heat-treated active carbon fiber for use in denitration, said denitration system comprising a first packed reactor which is packed with ~~a~~ said heat treated active carbon fiber for use in denitration that is produced by heat-treating a raw active carbon fiber at a temperature of 600 to 1,200°C in a non-oxidizing atmosphere ~~and activating the surfaces thereof with sulfuric acid or nitric acid to impart oxidizing oxygen-containing functional groups thereto,~~ and a second packed reactor which is located downstream thereof and packed with said heat-treated active carbon fiber for use in denitration, whereby exhaust gas and ammonia are introduced into said first packed reactor so as to bring nitrogen oxides (NO_x) present in the exhaust gas into contact with the ammonia and remove the nitrogen oxides by the continuous selective reduction of them to nitrogen (N₂), and any excess ammonia is recovered by adsorption in said second packed reactor.

20. (Cancelled)

21. (Withdrawn) A denitration method which comprises bringing exhaust gas containing nitrogen oxides and not more than 80% of water as water vapor, and NH₃ gas having the same concentration as the nitrogen oxides into contact with a heat-treated active carbon, said heat-treated active carbon is prepared by heat-treating an active carbon at 600° to 1,200 °C in a non-oxidizing atmosphere and activating the surfaces thereof with sulfuric acid or nitric acid to impart oxidizing oxygen-containing functional groups thereto, at a temperature ranging from ordinary temperature to 150°C, in order to reduce the nitrogen oxides selectively and thereby decompose them to nitrogen and water.

22. (Withdrawn) A denitration method as claimed in claim 21 wherein a higher degree of denitration of nitrogen oxides having a low temperature and a low concentration is performed at the outlet of an exhaust gas treating apparatus or the outlet of a boiler.